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Personal Contact, Individuation, and the Better-Than-Average Effect

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Research in which people compare themselves with an average peer has consistently shown that people evaluate themselves more favorably than they evaluate others. Seven studies were conducted to demonstrate that the magnitude of this *better-than-average effect* depends on the level of abstraction in the comparison. These studies showed that people were less biased when they compared themselves with an individuated target than when they compared themselves with a nonindividuated target, namely, the average college student. The better-than-average effect was reduced more when the observer had personal contact with the comparison target than when no personal contact was established. Differences in the magnitude of the better-than-average effect could not be attributed to the contemporaneous nature of the target's presentation, communication from the target, perceptual vividness, implied evaluation, or perceptions of similarity.

In the fictitious town of Lake Wobegon (Keillor, 1985), where "all the men are good-looking" and "all the women are strong," it is perhaps within reason that "all the children are above average" as well. But fictitious communities are not the only place where all people are expected to be better than average. A department chairperson we once knew insisted that all psychology instructors obtain teaching ratings that were above the department average. No "mean" feat to be sure, but research has demonstrated that 94% of college instructors do consider themselves to be above average in teaching ability (Cross, 1977).

Better-Than-Average Effect

The tendency to evaluate oneself more favorably than others is a staple finding in social psychology. This *better-than-average effect* has been demonstrated on trait ratings (Alicke, 1985; Dunning, Meyerowitz, & Holzberg, 1989) and behavior ratings (Allison, Messick, & Goethals, 1989; Messick, Bloom, Boldizar, & Samuelson, 1985), on items related to depression (Tabachnik, Crocker, & Alloy, 1983), on perceptions of risk for misfortune (Perloff & Fetzer, 1986; Weinstein, 1980, 1983, 1984; Weinstein & Lachendro, 1982), and on judgments about the

likelihood of conforming to desirable social norms (Codol, 1975).

The better-than-average effect provides compelling evidence that people maintain unrealistically positive images of themselves relative to others. In this respect, the better-than-average effect can be viewed as a type of self-serving bias in which people evaluate their characteristics and prospects more favorably than those of others. The better-than-average effect also falls within the purview of social comparison theory (Festinger, 1954). Social comparisons entail three fundamental elements: a motivation for self-evaluation or self-protection, a target with whom comparisons are made, and the particular dimension being compared (e.g., behavior, trait, attitude). In these terms, the better-than-average effect involves a comparison with the average college student on a trait or behavioral likelihood dimension. The motivation reflected in the comparison is self-enhancement, which is achieved by viewing one's traits and prospects more favorably than those of others. The better-than-average effect provides further support for the belief that social comparisons can help people maintain relatively high levels of self-esteem (Hakmiller, 1966; Taylor & Lobel, 1989; Taylor, Wood, & Lichtman, 1983; Wills, 1981).

Role of Ambiguity

Although the better-than-average effect is pervasive, a number of moderating variables that reduce this bias have been identified. For one, people exhibit the bias less on traits that are perceived as relatively uncontrollable, such as intellectual ability, than on traits that are relatively controllable, such as fairness (Alicke, 1985; Allison et al., 1989). Second, the bias is greater

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when people provide their own definitions of ambiguous trait dimensions (Dunning et al., 1989). Finally, Weinstein and his colleagues have shown that the bias is diminished when people are given specific information that indicates that the comparison target is no worse-off than themselves on the comparison dimension (Weinstein, 1980, 1983; Weinstein & Lachendro, 1982).

The common theme that runs throughout these findings is that the better-than-average effect is diminished as the social comparison becomes less ambiguous, or more objectively defined. For the most part, the ambiguity of a comparison has been defined with reference to the dimension of comparison: For example, ability dimensions are relatively unambiguous or objective because they can be evaluated by external criteria, whereas dimensions involving emotions, such as happy-sad, are more ambiguous or subjectively based.

In this article we argue that the nature of the comparison target provides another, perhaps even more fundamental, source of ambiguity in the social comparison process. In virtually every published study on the better-than-average effect, the target with whom participants are asked to compare themselves is an average peer—most frequently, the average college student. This target permits a high level of ambiguity or subjectivity in the comparison process. Under an instructional set to compare themselves with an average peer, participants may fail to engage in a specific comparison, but rather apply a simple “I am better than average” heuristic. In such circumstances, the self is allowed free reign to fulfill Greenwald’s (1980) portrayal of the “totalitarian ego.”

However, the totalitarian regime of the self is challenged by the possibility of contradiction from external sources. We believe that the latitude of favorability accorded the self in abstract contemplation is likely to be restricted in comparison with any real person about whom no specific information is available.¹ One reason for this is that in the absence of specific information, people tend to assume at least moderately positive characteristics in others (Matlin & Stang, 1978). A second reason, elaborated in theories of personal identity (e.g., Schlenker, 1986), is that the desire to maintain favorable identity images is tempered by the need to maintain believability not only to public audiences but also to the private self. Thus, real social comparisons may heighten the fear of invalidity (Kruglanski, 1990). Although we do not claim that the better-than-average effect will be eradicated in comparisons with real people, a fundamental assumption in the studies reported below is that the effect will be reduced in comparisons with real people versus the average college student.

The importance of the level of abstraction in the comparison has been recognized in a slightly different context by Codol (1975) in his research on the “superior conformity of self” (or “PIP”—*Primus Inter Pares*) effect. In a series of studies, Codol showed that the tendency to view oneself as more likely to conform to desirable social norms than others is more likely to occur when the other individual is undifferentiated (i.e., “others in general”) than when comparisons are made with specific individuals. Codol explained this difference by noting that people possess conflicting motives to conform to and differentiate

themselves from others and that differentiation is most likely to occur when the comparison target is undifferentiated.

The degree of ambiguity arising from comparison with different targets was also considered by Perloff and Fetzer (1986). They suggested, as we have, that the finding that people perceive themselves to be relatively invulnerable to misfortune might be due to instructions to compare themselves with an average peer. Their explanation was that the ambiguity of this comparison allows people to select a person who is especially at risk for misfortune. Thus, when people are asked to compare the likelihood that they versus the average college student will get divorced, suffer from a serious disease, or get fired from a job, they select comparison targets who are especially at risk for these events, thus ensuring the favorability of the comparison.

To test this assumption, Perloff and Fetzer (1986; Study 2) had participants compare their vulnerability to misfortune with that of their closest friend, a close friend, and the average college student. According to their reasoning, participants have less latitude to select downward comparison targets when they compare themselves with their closest friend than when they compare with a close friend or with the average college student. Consistent with this assumption, they found that the illusion of invulnerability was greater when people compared themselves with a close friend or an average college student than when they compared themselves with their closest friend.

As Perloff and Fetzer (1986) noted, however, there are two possible explanations for these findings. The explanation they favored is that people possess more information about their closest friends to indicate that these friends are no more susceptible to misfortune than themselves. An equally plausible explanation, however, is that people like their closest friend more than a close friend or an average peer and therefore evaluate their closest friend more favorably. More direct support for Perloff and Fetzer’s assumption that specific information can reduce the better-than-average effect has been obtained by Weinstein and his colleagues (e.g., Weinstein, 1980, 1983; Weinstein & Lachendro, 1982). Weinstein et al. have demonstrated that the better-than-average effect is diminished by presenting participants with information that suggests that others are no more vulnerable to misfortune than themselves.

Thus, previous research has shown that comparisons with people who possess characteristics that make them no more susceptible to misfortune than oneself can diminish the better-than-average effect. Because the better-than-average effect is diminished when people are discouraged from making downward comparisons, investigators have assumed that downward comparisons account for the large better-than-average effect that is typically obtained when people compare themselves with the average college student. We, on the other hand, assume that the better-than-average effect will be diminished in comparisons with any real person about whom no prior information is available. We do not assume that people typically engage in down-

¹ Our predictions assume that the initial evaluation of the target is neutral or somewhat favorable. In general, increasing a target’s concreteness might be expected to produce a polarizing effect whereby positive targets are viewed more favorably and negative targets more unfavorably.

ward social comparison, or any specific comparison at all, when asked to compare themselves with an average peer. As noted previously, we believe that the abstract nature of such a comparison simply allows them to apply an "I am better than others" heuristic. This assumption is disengaged by the reality constraints imposed by real social comparison targets, by the favorability that is typically accorded to strangers, or both.

Hierarchical Levels of Abstraction

We believe, along with most theorists of personal identity (e.g., Greenwald, 1980; Schlenker, 1986), that at the highest level of abstraction people tend to exhibit a strong positivity bias in their self-concepts. The favorability accorded to the self vis-à-vis others, however, diminishes as the target of comparison becomes less abstract, or more concrete in nature. The major focus of this article is to identify the minimal features of real people as social comparison targets that reduce their ambiguity relative to the average college student and therefore diminish the better-than-average effect.

At the most fundamental level, real people differ from the average college student in terms of being individuated. *Individuation* refers to the recognition of a person's distinct identity. As such, individuation is the converse of *deindividuation*, the denial or negation of distinctiveness. We conceive of individuation as the first level of concreteness, or objectivity, that disengages people from the abstract conception of themselves as better than others. Thus, we expect that comparisons between oneself and any individuated target about whom no specific information is available will result in a diminution of the better-than-average effect relative to comparisons with the average college student.

The second factor that distinguishes real people from hypothetical social comparison targets is personal contact. We expect that the establishment of personal contact will result in a further diminution of the better-than-average effect beyond the reduction due to individuation. The importance of personal contact is suggested by research and anecdotal evidence concerning the way people are treated as a consequence of their physical presence. In Milgram's studies of obedience (1965, 1974), for example, participants delivered the most shock when the "learner" was neither visible nor audible and delivered the least shock when the learner was in the same room and personal contact was established. Anecdotally, wartime atrocities are less likely to occur when soldiers are forced to confront their victims directly: It is presumably easier to bomb a village of anonymous occupants than to fire point-blank on innocent people (Padgett, 1979). Scientists who are concerned with the depersonalization of nuclear war have suggested requiring personal contact between the decision maker and a potential victim (Fisher, 1981).

These hypothesized effects of personal contact are akin to mere presence effects in the context of social facilitation (Zajonc, 1968). In the research we report in this article, however, we went to greater lengths than in past research to rule out variables that naturally covary with mere presence, such as anticipated interaction and assumption of similarity, and also explored alternatives to mere presence that have previously been suggested, such as evaluation apprehension (Cottrell, Wack, Sekerak, & Rittle, 1968).

Study 1: Real People Versus the Average College Student

We designed Study 1 to assess the basic assumption that the better-than-average effect would be diminished in comparisons with real people versus the average college student. Participants in this study compared themselves either with a stranger with whom they had minimal personal contact, or to the average college student. In Study 1 we did not attempt to distinguish between individuation and personal contact.

Method

Participants

Participants were 51 male and 70 female students enrolled in General Psychology who participated in partial fulfillment of their research requirement. In this and all subsequent studies, the signup sheets for the experiments requested that participants not sign up with a friend.

Materials

Comparisons were made on 20 positive and 20 negative traits selected from a previous study (Alicke, 1985) that measured the desirability of 365 trait adjectives. Two positive and two negative trait judgments were included per page, and the 10 pages were randomly assembled into booklets.

Procedure

The experiment was conducted in large group sessions. Participants were told that the study was concerned with the way individuals view themselves in comparison with others and that they would be asked to judge themselves and others on a series of personality traits. Participants were then randomly assigned to one of two groups, each of which received separate instructions. Participants who compared themselves with the average college student were brought to a separate room and asked simply to rate the extent to which the trait described themselves relative to the average college student of the same sex, on a single 9-point scale (0 = *much less than the average college student*; 4 = *about the same as the average college student*; 8 = *much more than the average college student*).

Participants who compared themselves with a specific target were instructed to take a seat beside a person of the same gender whom they did not know. They were then asked to look at each other. Next, one member of each pair was asked to move to a new seat on the opposite side of the room. Participants then received their booklets and were asked to rate the extent to which each trait characterized them in comparison to the person they had just met (referred to as "the person you were sitting next to" on the rating booklet) on a single 9-point scale (0 = *much less than the person I was sitting next to*; 4 = *about the same as the person I was sitting next to*; 8 = *much more than the person I was sitting next to*).

Results and Discussion

We conducted gender analyses in this and in each of the subsequent studies, and in no instance did gender qualify the basic findings. Thus, the gender variable is not discussed further.

An initial analysis indicated that the better-than-average effect was pervasive, occurring on 38 of the 40 traits in the group that compared themselves with the average college student and on 31 of the 40 traits in the group that compared themselves

Table 1
Mean Better-Than-Average Effect for Individual Traits

Trait	Average student		Specific student	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Positive traits				
Dependable	2.46	0.90	1.09	1.53
Intelligent	1.64	1.39	1.00	1.47
Considerate	2.22	1.05	0.97	1.39
Observant ^a	1.53	1.62	1.24	1.56
Polite	2.39	1.06	1.09	1.62
Clear-headed	1.30	1.28	0.61	1.40
Respectful	2.16	1.06	0.85	1.59
Level-headed	1.82	1.24	0.93	1.41
Resourceful	1.48	1.38	0.88	1.52
Bright	1.73	1.23	1.00	1.38
Cooperative	1.75	1.12	1.01	1.37
Honorable	1.98	1.10	0.94	1.59
Reliable	2.54	0.74	1.09	1.42
Perceptive ^a	1.46	1.18	0.97	1.65
Trustful	2.00	1.44	0.84	1.55
Mature	1.98	1.31	0.96	1.54
Friendly	1.63	1.56	1.06	1.64
Creative ^a	0.80	1.63	0.64	1.79
Responsible	2.20	1.00	0.91	1.58
Imaginative ^a	1.04	1.71	1.04	1.62
Negative traits				
Meddlesome	-1.27	1.60	-0.27	1.56
Insecure	-0.47	1.87	-0.46	1.83
Spiteful	-1.66	1.52	-0.18	1.54
Vain	-1.00	1.87	-0.10	1.55
Complaining ^a	-0.63	1.66	-0.25	1.56
Gullible ^a	-0.39	2.00	-0.30	1.97
Deceptive	-1.23	1.70	-0.23	1.68
Belligerent	-1.64	1.60	-0.39	1.54
Disobedient	-1.98	1.43	-0.59	1.65
Humorless ^a	-1.77	1.34	-1.41	1.53
Uncivil	-2.18	1.42	-0.71	1.34
Unpleasant	-2.23	1.08	-1.03	1.32
Snobbish	-2.09	1.21	-0.70	1.74
Lazy ^a	-0.54	1.62	-0.29	1.93
Unstudious ^a	-0.88	1.46	-0.55	1.76
Liar	-2.30	1.16	-0.71	1.49
Disrespectful	-2.25	1.21	-0.65	1.52
Mean	-2.05	1.47	-0.32	1.71
Unforgiving	-1.32	1.86	-0.12	1.69
Maladjusted	-1.86	1.43	-0.46	1.52

Note. Values in the table represent the distance from the scale midpoint (4). Larger positive values for positive traits indicate a larger better-than-average effect, and larger negative values for negative traits indicate a larger better-than-average effect.

^a The effect of comparison target was not significant.

with a specific person. The results for each of the 40 traits are presented in Table 1.

The primary analysis conducted on these data included a between-subjects variable of comparison target (ratings of oneself vs. the average college student or vs. the person next to whom they had been seated), and a within-subjects variable of trait valence. In this analysis, negative traits were reverse scored so that larger values would indicate greater bias. Trait ratings were then combined to yield single bias scores for positive and negative traits.² The expected effect for the between-subjects variable

was obtained, $F(1, 119) = 46.54, p < .0001$, indicating that the better-than-average effect was larger for participants who compared themselves with an average college student ($M = 5.65$) than with a specific target ($M = 4.72$).

The main effect of trait valence also was significant $F(1, 119) = 34.83$, indicating that the magnitude of the better-than-average effect was greater for positive ($M = 5.81$) than for negative ($M = 4.95$) trait dimensions. The interaction between comparison condition and trait valence was nonsignificant, $F(1, 119) = 2.67, p > .20$.

In summary, Study 1 revealed a consistent reduction of the better-than-average effect when participants compared themselves with a randomly selected, same-sex peer. Despite the fact that no specific information was available about this person, the mere presence of a live comparison target with whom the participant established minimal social contact was sufficient to attenuate the bias. The finding that the better-than-average effect was greater on positive than on negative trait dimensions is consistent with previous research on this topic (Alicke, 1985; Dunning et al., 1989).

Study 2: Distributional Ratings and the Average College Student

One possible explanation for the tendency to evaluate real people more favorably than the average peer is that students construe "average" to mean subpar. Students may have learned, for example, that average performance is insufficient to qualify for graduate school and many professional opportunities. Before attempting to assess the hypothesized variables of target individuation and personal contact, therefore, it was necessary to evaluate this alternative assumption.

In Study 2 we used a somewhat different methodology than in the other studies in this series to evaluate the possibility that the average student is interpreted pejoratively. We asked participants to indicate the percentage of students at their university who would fall into each of nine categories of a bipolar trait dimension (e.g., dependable-undependable). We also asked participants to make "point estimates" indicating their own standing on these dimensions, as well as those of a specific person and the average college student. By calculating the mean of each participant's distributional ratings and comparing it with their point estimates, it was possible to determine where participants placed themselves and a specific person relative to the average college student, as well as where each of these entities was located relative to the distribution mean.

One prediction was that people would place the average college student approximately at the perceived distribution mean for each trait, thus showing that people do not interpret the average college student pejoratively. A second prediction was that people with whom participants had minimal contact would be evaluated more favorably than would the average college student. Finally, although we claim that the better-than-average

² Cronbach's alpha, computed for the composite trait and life event ratings, varied across these studies from .70 to .84 for trait ratings and from .68 to .86 for life event ratings.

effect is reduced by comparison with real people, we still assume that the self is evaluated more positively than any other comparison target. We expected, therefore, that the self would consistently be evaluated more favorably than both specific targets and the average college student.

Method

Participants

Participants were 166 male and female undergraduate students who were solicited from statistics classes. Students could receive extra class credit for their participation.

Procedure and Ratings

The experiment was conducted in group settings of 20–40 participants per session. Approximately half of the participants made point estimates and then distribution ratings, and the other half made these judgments in reverse order. Two separate sets of eight trait dimensions were used, with each group of participants being exposed to only one set. An example of distribution ratings for one trait dimension is provided below:

What percentage of students at this university do you think falls into each of the categories below on the trait dimension DEPENDABLE–UNDEPENDABLE?

Note: Be sure your percentages total to 100%.

- ___ extremely dependable
- ___ much more dependable than undependable
- ___ somewhat more dependable than undependable
- ___ slightly more dependable than undependable
- ___ equally dependable and undependable
- ___ slightly more undependable than dependable
- ___ somewhat more undependable than dependable
- ___ much more undependable than dependable
- ___ extremely undependable

Participants completed this task for each of the eight trait dimensions. Half of the trait dimensions were scaled in the positive-to-negative direction (e.g., *extremely dependable* to *extremely undependable*), and half were scaled in the negative-to-positive direction (e.g., *extremely immature* to *extremely mature*).

The other three judgments comprised a between-subjects variable of whether participants were asked to indicate where they, a specific person, or the average student at their university, were located on the same eight trait dimensions for which distributional judgments were made. As in Study 1, the specific comparison target was the person who had been sitting next to the participant. Participants simply placed a check next to the point on the trait dimensions that they believed most accurately characterized themselves, the average college student, or the person who had been sitting next to them.

Results and Discussion

Data from 2 participants whose percentage estimates did not sum to 100 were deleted from the analysis. We calculated the mean of each trait dimension by multiplying each of the nine percentage values by their respective scale values (1–9) and dividing by the sum of the percentages (i.e., 100%). Figures 1 and 2 show the distributions of positively and negatively oriented trait dimensions aggregated over participants, with the mean value of each distribution and the average point estimates for

ratings of oneself, the specific person, and the average college student.

One immediately striking aspect of Figures 1 and 2 is that all point estimates, even those for the average college student, are more favorable than the perceived distribution mean. Over all traits, the average college student was evaluated significantly more favorably than the perceived distribution mean, $M_{diff} = 0.89$, $t = 8.40$, $p < .0001$. Thus, these data do not support the assumption that students interpret the term “average” pejoratively in comparison to the perceived mean of the distribution for a trait.

We conducted an analysis of variance (ANOVA) on participants' point estimates, aggregated over positive and negative traits. The first independent variable in this analysis was the between-subjects variable of comparison target (self, specific person, average college student). The second independent variable was a within-subjects variable that referred to whether trait dimensions were scaled from positive to negative or vice versa. The main effect for the between-subjects variable was significant, $F(2, 163) = 29.35$, $p < .0001$, indicating that the self was rated the most favorably ($M = 2.64$), followed by the specific person ($M = 3.13$), and then the average college student ($M = 3.83$). Using a Newman-Keuls test, we determined that each of these differences was significant at $p < .05$. The main effect for the repeated measures variable was nonsignificant, $F(1, 163) = 1.38$, $p > .24$. An interaction between comparison target and trait direction, $F(2, 163) = 10.90$, $p < .0001$, indicated that the differences among self, specific person, and average college student varied somewhat in the positive and negative trait direction conditions. However, these values differed in magnitude only and did not qualify the basic findings.

In summary, the results of Study 2 showed that the average college student was evaluated more favorably than the perceived distribution mean for each of the 16 trait dimensions. In fact, point estimates for all targets (self, specific person, and average college student) were more favorable than estimates of the perceived distribution mean. Furthermore, the ordering of these means consistently supported the assumption that specific people are evaluated more favorably than the average college student. Finally, the self was consistently evaluated more favorably than either a specific person or the average college student.

Study 3: Individuation, Personal Contact, and Perceptions of Misfortune

Studies 1 and 2 demonstrated that the better-than-average effect is reduced in comparisons with real people relative to comparisons with the average college student. These studies did not, however, distinguish between the individuation and personal contact components of the effect. In Study 3 we sought to demonstrate that individuation and personal contact are two separate variables that distinguish real and hypothetical social comparison targets. Specifically, we predicted that individuating the target would provide one source of reduction in the better-than-average effect and that the establishment of personal contact would further reduce the bias.

We included five experimental conditions in Study 3 to evaluate this assumption and to see whether other variables might

also influence the better-than-average effect. Interviews were conducted in which one participant (interviewer condition) asked two brief questions of another participant, who served as the comparison target. A live observer (live-observer condition) watched this interview in the same room while it was taking place. The interviewer and live observer constituted the two conditions in which personal contact was established. The live-observer condition provided a control against which to assess whether the interaction that took place between the interviewer and target independently influenced the better-than-average bias. Another participant saw the interview on videotape (videotape condition) while another read a written transcript (transcript condition) of the interview. These two conditions represent targets who are individuated but with whom no personal contact is established. Finally, one group of participants simply compared themselves with the average college student (average-peer condition).

In this study, we assessed the better-than-average effect in terms of the probability of being victimized by 24 unfortunate life events (taken from Weinstein, 1980) rather than in terms of the trait ratings used previously. The tendency to view oneself as less susceptible to misfortune than the average college student has been referred to as the *optimistic bias* (Weinstein, 1980) and the *illusion of invulnerability* (Perloff & Fetzner, 1986).

We predicted two primary differences: First, we expected comparisons with the two individuated, no-personal-contact targets (videotape and written transcript) to produce less bias than comparisons with the average college student. This would demonstrate the hypothesized role of target individuation. The videotape and written transcript conditions differed in that visual and auditory cues were available in the former but not the latter. We assessed this comparison simply to see whether visual and auditory cues are important in conditions in which no personal contact is established.

Second, conditions in which people compare themselves with a target with whom they have established personal contact (interviewers or live observers) were expected to produce less bias than conditions in which people compare themselves with individuated targets with whom no personal contact has been established. This would demonstrate the role of personal contact in the better-than-average effect. In keeping with our definition of personal contact in terms of mere physical presence, we did not expect to obtain differences in the better-than-average effect between interviewers who communicated with the targets and live observers who simply watched the interaction take place.

Method

Participants

Participants were 74 male and 94 female undergraduate students enrolled in General Psychology who received credit toward their experimental participation requirement.

Materials

Participants made comparative-risk judgments on a series of 24 items selected from a study by Weinstein (1980). Participants were instructed to rate the likelihood that each unfortunate event (e.g., contract a vene-

real disease, have a heart attack) would happen to them compared with either the person interviewed or the average college student. Ratings were made on 21-point scales. The left half of each scale indicated a better-than-average effect ($-10 = \text{my chances are much less than the person I interviewed/the person I saw interviewed/the person I read about/the person I saw on videotape/the average college student}$), the midpoint indicated no bias (" $=$ " = *my chances are about the same*), and the right half indicated a comparative negativity bias ($+10 = \text{my chances are much greater than the person I interviewed/the person I read about/the person I saw on videotape/the average college student}$).

Procedure

Participants attended experimental sessions in same-sex groups of 5, in a suite of three adjoining rooms. Participants were met as they arrived for the experiment and were brought to the room individually so that they would have no chance to communicate.

On arrival, cards labeled A through E were drawn to determine task assignments. The 3 participants involved in the live interaction (A, B, and C) remained in one room, and the other 2 participants (D and E) were taken to the two adjoining rooms by a second experimenter. An equal number of control participants were run during each session in a third room.

Live interaction conditions. The room used for the live interaction conditions was equipped with a color Panasonic camcorder and three chairs. Two participants (A and B) were to have a simulated interaction by means of a question-and-answer session that would be videotaped. Participant A (interviewer condition) was designated to ask two questions: "What do you like most about the university?" and "If you could interview a famous person, who would it be, and why?" Participant B answered the questions and was videotaped. Participant C (live-observer condition) sat next to the video camera and simply watched the interaction. Chairs were arranged so that Participant C had the same perspective of Participant B as did the interviewer (Participant A). The interviewer and live-observer conditions are the two in which personal contact is established.

The questions that Participant A were to ask were provided to all 3 participants at the beginning of the session, along with instructions explaining their individual roles. Participant B signaled the experimenter when he or she was ready to begin taping. Participant A then read a question, and Participant B responded. Answers to each question were typically 20–30 s in duration.

After the second answer, participants were brought to separate rooms and given booklets containing a cover sheet with instructions and rating scales. They were told that the experimenters were interested in how people compare themselves with others and were asked to make a series of judgments comparing themselves with the person interviewed. Participant B served as the comparison target for Participants A and C but did not make any ratings of his or her own. To minimize concerns with being evaluated by the target, the experimenter emphasized that the experiment was finished as soon as these judgments were completed and that no further interaction would take place.

Videotape, transcript, and average-student conditions. Participants in the video (Participant D) and transcript (Participant E) conditions were run individually in adjoining rooms. Participant D was seated approximately 48 in (122 cm) from a 25-in (64-cm) Sony color monitor. The second experimenter gave the participant written instructions stating that he or she was to watch a videotape of another participant answering two questions. As in the live conditions, participants were provided with the questions in advance. The participant indicated when he or she was ready, and the experimenter played the videotape. The videotape depicted a same-sex interviewee from a previous session, seen from the same perspective as that of the live observer. The specific videotape par-

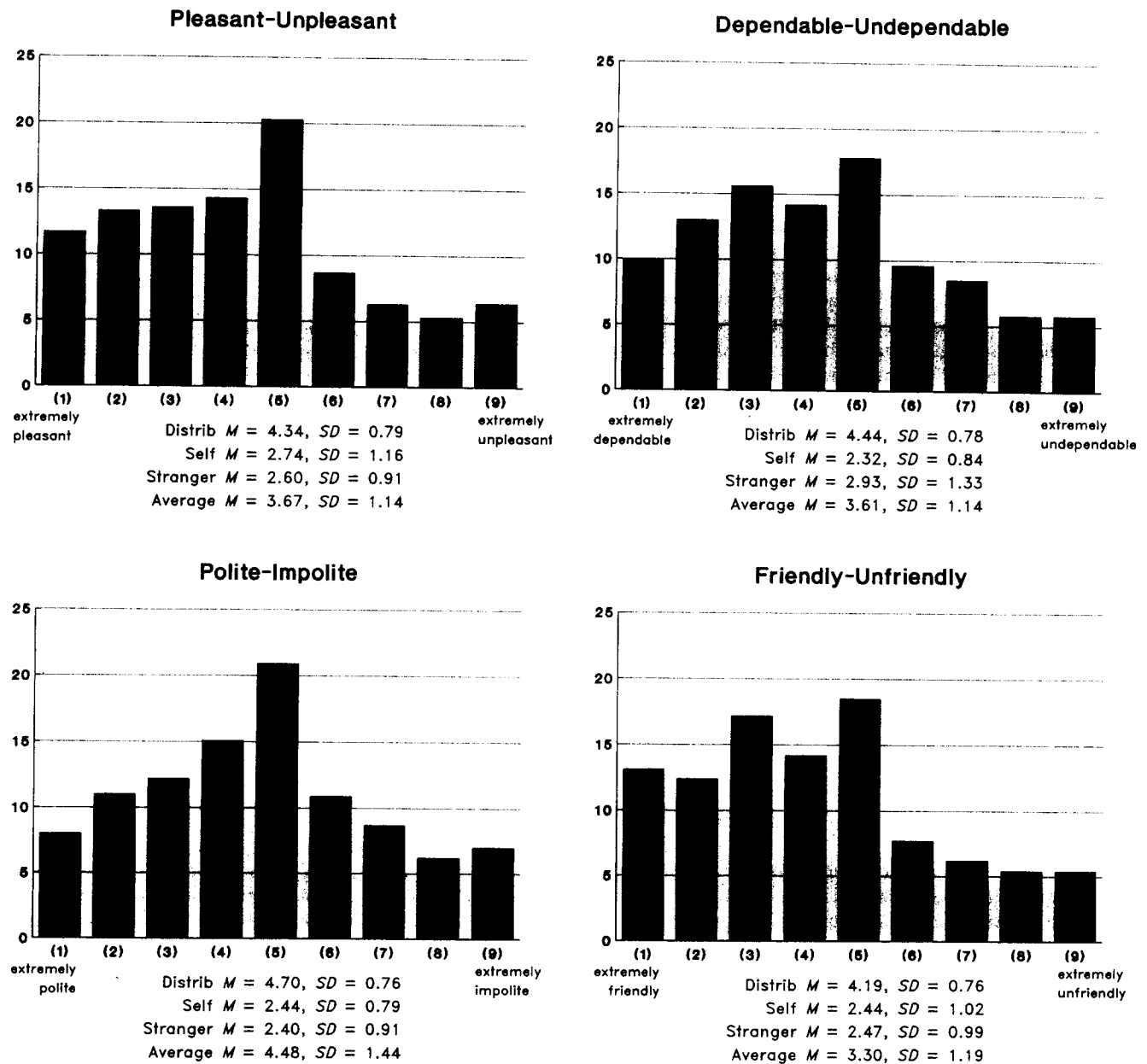


Figure 1. Perceived distributions (Distrib) for positive trait dimensions.

Participants saw was determined randomly, with the restriction that each participant saw a different person being interviewed. The remaining procedure was identical to that of the interview and live-observer conditions, except that participants compared themselves with the person on the videotape.

Participants in the transcript condition followed a procedure similar to those in the videotape condition except that they read a printed transcription of the target's (alleged) answers and made their comparisons on this basis. The videotape and transcript conditions represent the two cases in which the target was individuated, with no establishment of personal contact. Participants in the control condition were given a booklet of rating scales with instructions to compare themselves with the average college student.

Results and Discussion

We obtained aggregate scores first by calculating the mean bias score for each participant, averaged across the 24 items. These values, and standard deviations, are presented for each condition in Figure 3. To determine the overall effect of different comparison targets on the magnitude of the better-than-average effect, we performed an ANOVA on these mean bias scores, with the five comparison conditions as the independent variable.

The analysis of the mean bias scores yielded a significant overall effect of the comparison condition, $F(4, 163) = 6.56, p < .0001$. The first planned comparison indicated that there was

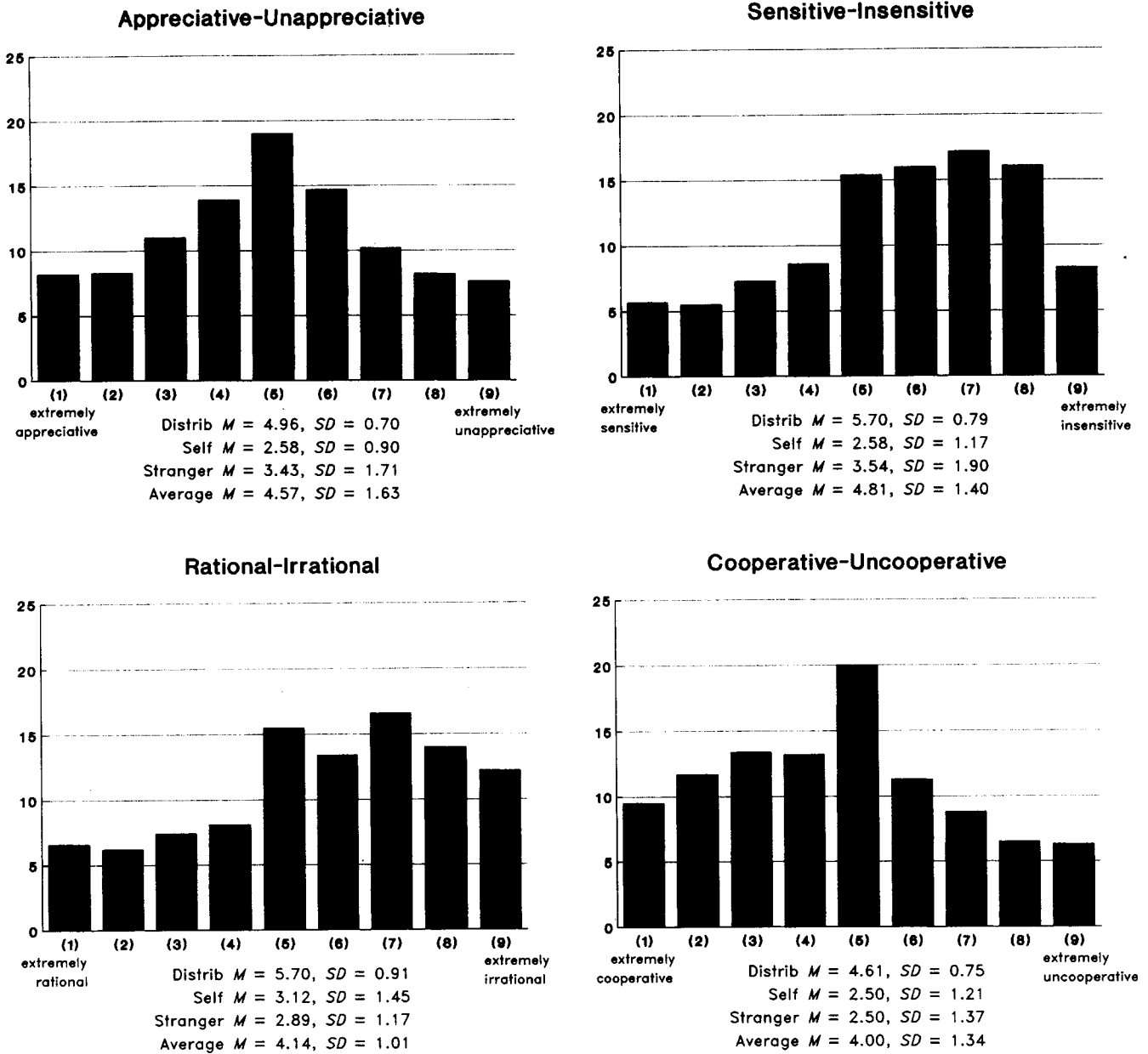


Figure 1. (Continued).

greater bias in the two conditions in which the target was individuated but no personal contact was established (videotape and transcript) than in the two conditions in which personal contact was established (interviewer and live observer), $F(1, 166) = 18.61, p < .0001$. The second planned contrast showed that the two individuated, non-personal-contact conditions (videotape and transcript) produced less bias than the condition in which participants compared themselves with the average college student, $F(1, 166) = 4.43, p < .04$. Post hoc comparisons revealed no significant difference between the interviewer and live-observer conditions or between the videotape and transcript conditions.

Analysis of the 24 individual items averaged across comparison target conditions revealed that the better-than-average effect was significant ($p < .05$) for 19 of the 24 items. Finally, the better-than-average effect score was significantly different from 0 ($p < .05$) for every comparison condition except the live observer.

Thus, the results of Study 3 demonstrated the hypothesized effects of individuation and personal contact. The first comparison was between participants who saw an individuated target on videotape or read a transcript of the target's interview, and those who compared themselves with the average college student. The better-than-average effect was significantly reduced when the target was individuated relative to when the target was

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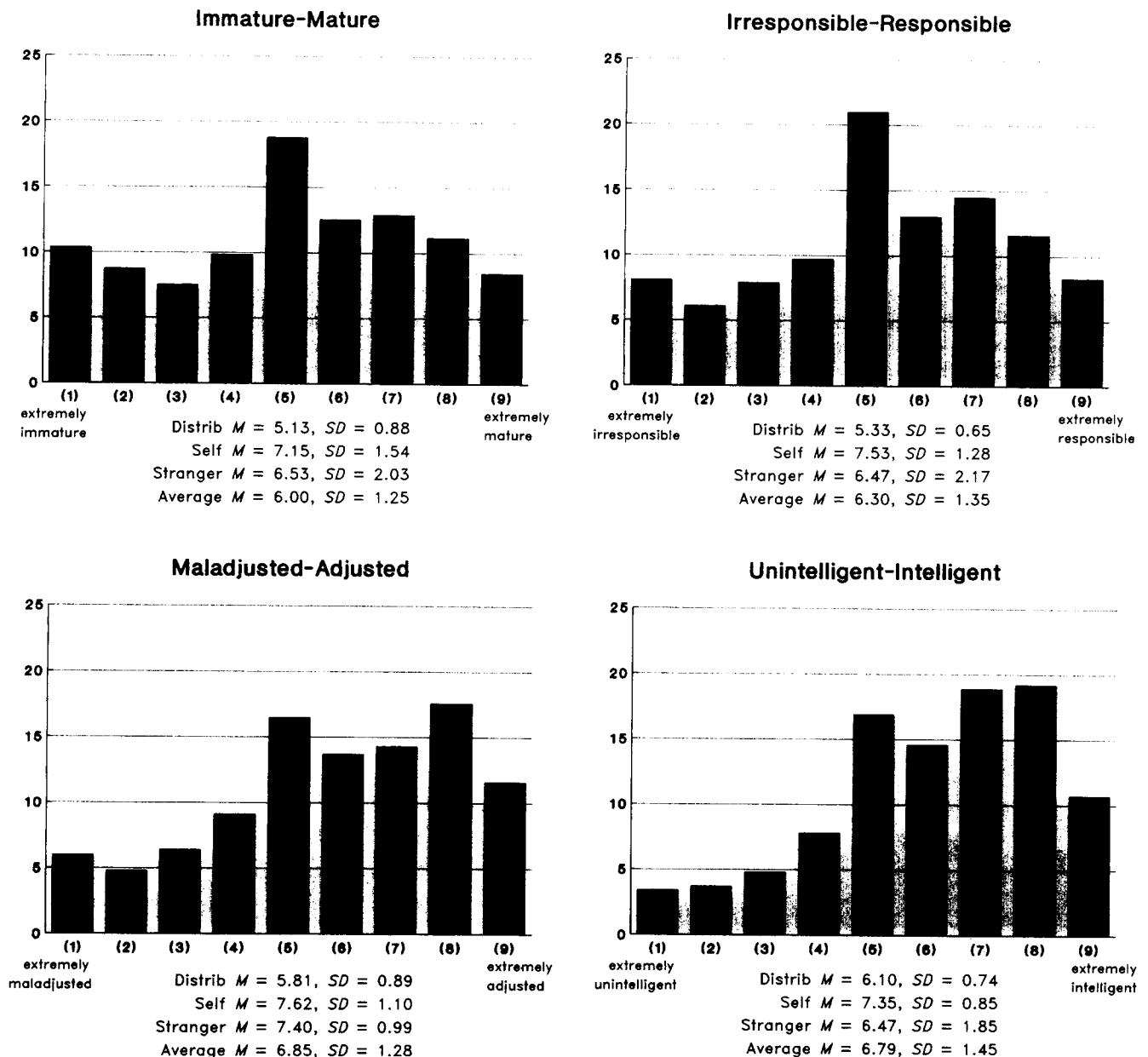


Figure 2. Perceived distributions (Distrib) for negative trait dimensions.

an abstract entity, namely, the average college student. The second important comparison involved participants who had, or did not have, personal contact with the target. Participants who established personal contact with the target, either by simple observation or minimal social interaction, exhibited a reduced better-than-average effect relative to participants who saw an individuated target with whom they had no personal contact. Because identical information was provided in each of the four conditions, these results indicate that the better-than-average effect was attenuated by the establishment of personal contact rather than by the specific information conveyed.

Further analyses revealed the lack of a significant difference

between the written-transcript and videotape conditions, suggesting that visual cues did not influence the better-than-average effect when no personal contact was established. Furthermore, the lack of a significant difference between the live-observer and interviewer conditions indicated that the better-than-average effect was not influenced by direct interaction with the target.

Study 4: Individuation and Personal Contact Revisited

We designed the fourth study to address a number of alternatives to the individuation and personal contact explanations. The first possibility pertains to the individuation component.

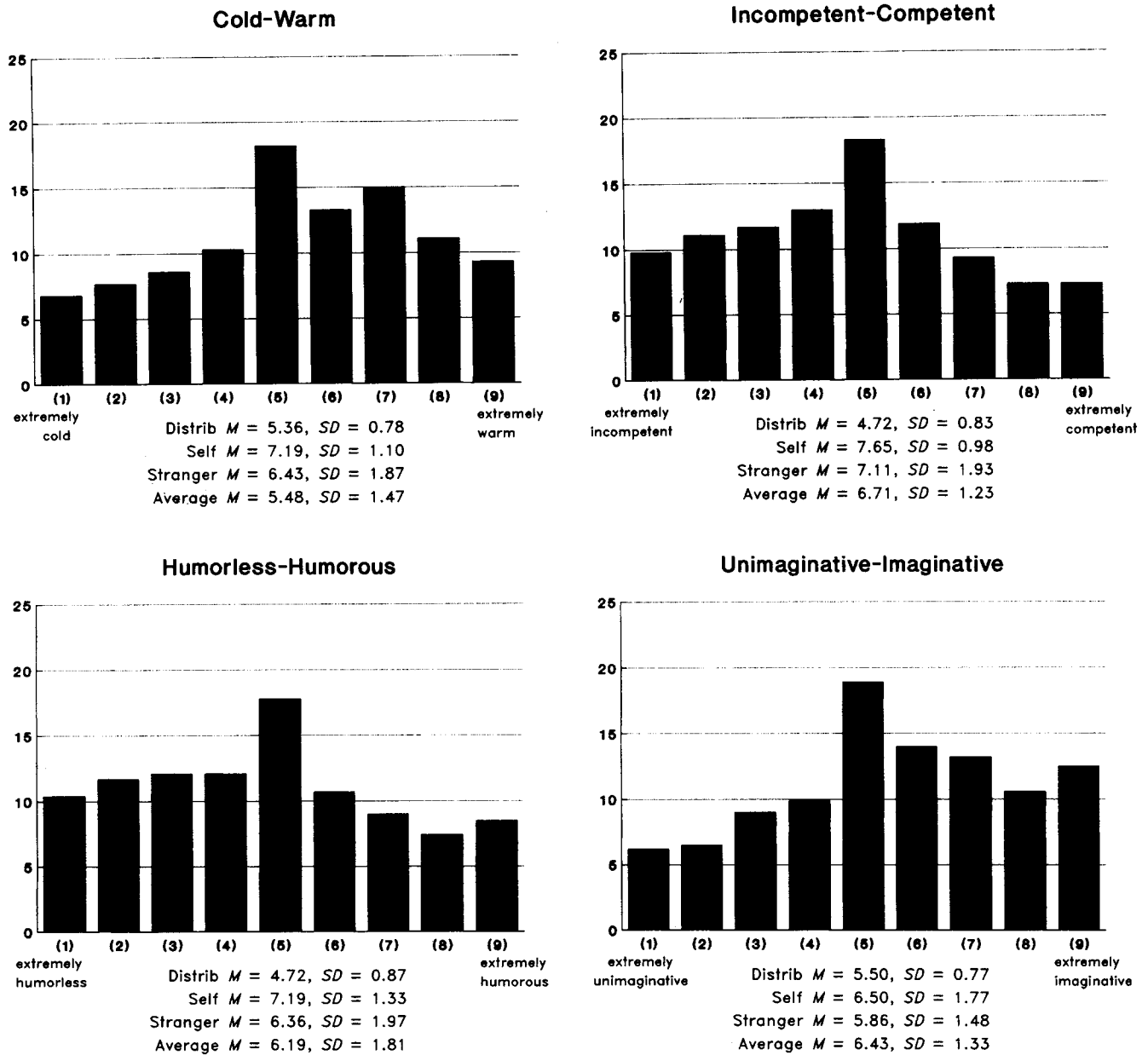


Figure 2. (Continued).

Participants in Study 3 were provided with some, albeit minimal, social communication from the target. Thus, the reduced better-than-average effect obtained in the individuated, no-personal-contact conditions relative to the average-college-student condition could possibly have been due to this minimal communication. To address this issue, in Study 4 we incorporated a condition in which the comparison target was represented by a still video image. Differences in the better-than-average effect between this condition and the average-college-student condition would help isolate the hypothesized role of target individuation.

We included another condition to investigate various alternatives to the personal-contact component. The first issue concerned the contemporaneous nature of the comparison. In the individuated, no-personal-contact conditions of Study 3 (videotape and transcript), participants were led to believe that the targets' presentations had occurred in the past, whereas in the conditions in which personal contact was established (interviewer and live observer), participants believed that the targets' presentations were contemporaneous. In the personal-contact conditions, therefore, people compared themselves with individuals whose presentations had just taken place, whereas

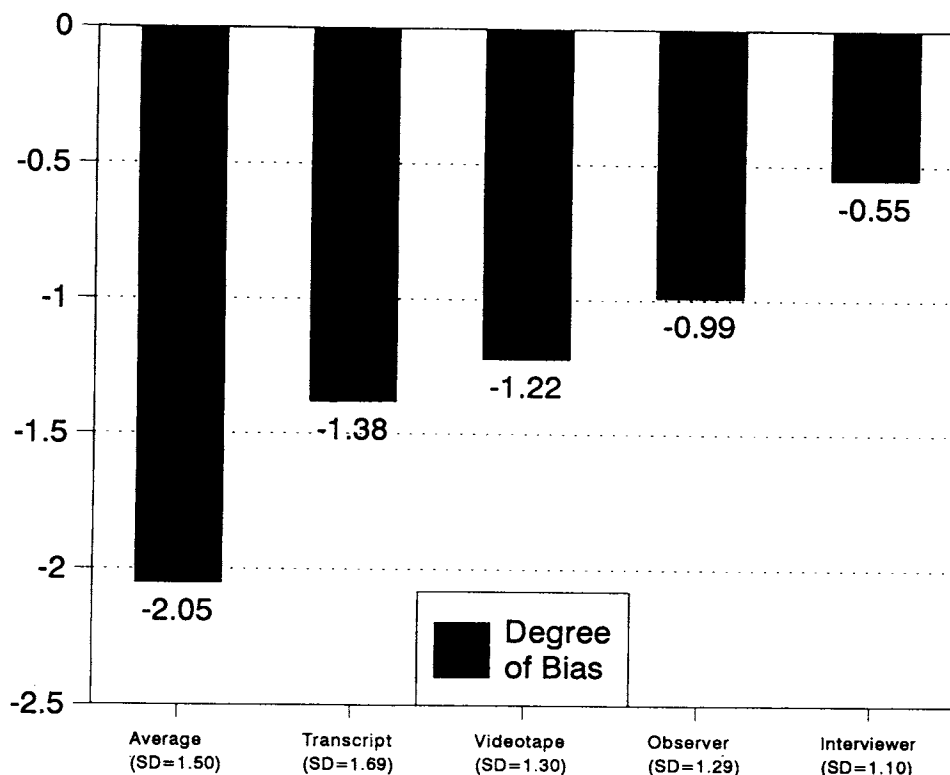


Figure 3. Means and standard deviations (SD) for life event ratings (Study 3).

in the no-personal-contact conditions they compared themselves with individuals whose presentations had occurred in the past. Differences between these two conditions, therefore, could possibly be explained in terms of the contemporaneous nature of the presentation rather than in terms of personal contact.

We addressed this issue by including a condition in which participants were led to believe that the presentation they were viewing on their TV monitor was occurring contemporaneously in the next room (subsequently referred to as the contemporaneous-video condition). A significant difference between this condition and the condition in which participants believed the interview took place in the past (subsequently referred to as the non-contemporaneous-video condition) would provide evidence for the importance of the contemporaneous nature of the comparison.

This manipulation also permitted a comparison between two contemporaneous conditions: the live observer, who watched the interaction in the same room as the comparison target, and the participant who watched a (supposedly) contemporaneous interaction on a TV monitor. These two conditions differed only in that the live observer was actually in the same room with the target, whereas the participant watching the TV monitor was in the adjoining room. A reduction in the better-than-average effect in the live-observer condition relative to the contemporaneous-video condition would provide the most compelling evidence so far that personal contact with the comparison target is an important factor in social comparisons.

Participants in Study 4 were also asked to assess how similar

they were to the comparison target. Similarity provides a possible alternative to both the individuation and personal-contact components. In other words, people may see themselves as more similar to individuated targets than to the average college student, and they may also see themselves as more similar to targets with whom they have established personal contact than to those with whom they have not established personal contact. Thus, we assessed participants' perceptions of similarity to the target to see whether these perceptions were related to the better-than-average effect.

Finally, participants in Study 4 made both trait ratings and ratings of the likelihood of being victimized by unfortunate life events.

Method

Participants and Procedure

Participants were 75 male and 97 female undergraduate psychology students. The procedure for the live-interview, live-observer, non-contemporaneous-video, and average-college-student conditions was identical to that in Study 3.

Participants in the contemporaneous-video condition were led to believe that they were watching a target person who was being interviewed in the adjoining room. To make this manipulation more realistic, a cable connected to the TV monitor was conspicuously led through an opening in the wall into the next room.

Participants who saw the still video image were asked to compare themselves with the person they saw on their TV monitor, who was, as in all conditions, described as a fellow student.

Results and Discussion

Data from 1 participant who expressed suspicion about the contemporaneousness manipulation during debriefing were excluded from the analysis. Means and standard deviations for the main findings are presented in Figures 4 and 5.

As in Study 3, we averaged ratings across the 24 life events to form a composite score for each participant. Larger negative values indicate higher degrees of the better-than-average effect. We also averaged the 10 trait ratings to form a composite score. Because each of the 10 traits was positive, higher positive values for these judgments indicate a greater better-than-average effect. The overall ANOVA on the life events was significant, $F(5, 167) = 11.03, p < .0001$, as was the ANOVA on the trait ratings, $F(5, 167) = 15.41, p < .0001$. Better-than-average effect scores were significantly different from 0 ($p < .05$) on life event ratings in every condition except the live-observer condition, and on all trait ratings.

Individuation

One purpose of Study 4 was to replicate the finding of Study 3, which showed that comparisons with targets who are individuated are less biased than comparisons with the average college student. In Study 4, this required a contrast between the average-college-student condition and the three video conditions (contemporaneous video, non-contemporaneous video, still video image). This contrast was significant for the life events, $F(1, 167) = 17.50, p < .0001$, and for the trait ratings, $F(1, 167) = 41.13, p < .0001$.

To assess the possibility that the above results were due to

minimal communication rather than to target individuation, in Study 4 we assessed whether the better-than-average effect was reduced when participants compared themselves with a still image on their TV monitors relative to comparisons with the average college student. A significant difference between these conditions would demonstrate that target individuation led to a reduction in the better-than-average effect even when participants received no communication from the target. In support of the individuation interpretation, results indicated that the better-than-average effect was reduced in the still video condition relative to the condition in which participants compared themselves with the average college student on both life event ratings, $F(1, 167) = 12.41, p < .0006$, and trait ratings, $F(1, 167) = 27.65, p < .0001$.

Personal Contact

In Study 4 we also sought to replicate the finding that personal contact leads to less biased comparisons than situations in which no personal contact occurs. The appropriate contrast between the two personal-contact conditions (interviewer, live observer) and the three non-personal-contact conditions (contemporaneous video, non-contemporaneous video, still video image) was significant for the life events, $F(1, 167) = 19.32, p < .0001$, and for the trait ratings, $F(1, 167) = 12.41, p < .0006$.

In Study 4 we also compared the contemporaneous versus the non-contemporaneous nature of the social comparison. Participants in the contemporaneous condition compared themselves with a target whose interview they believed was being displayed on their TV monitors. These participants did not exhibit sig-

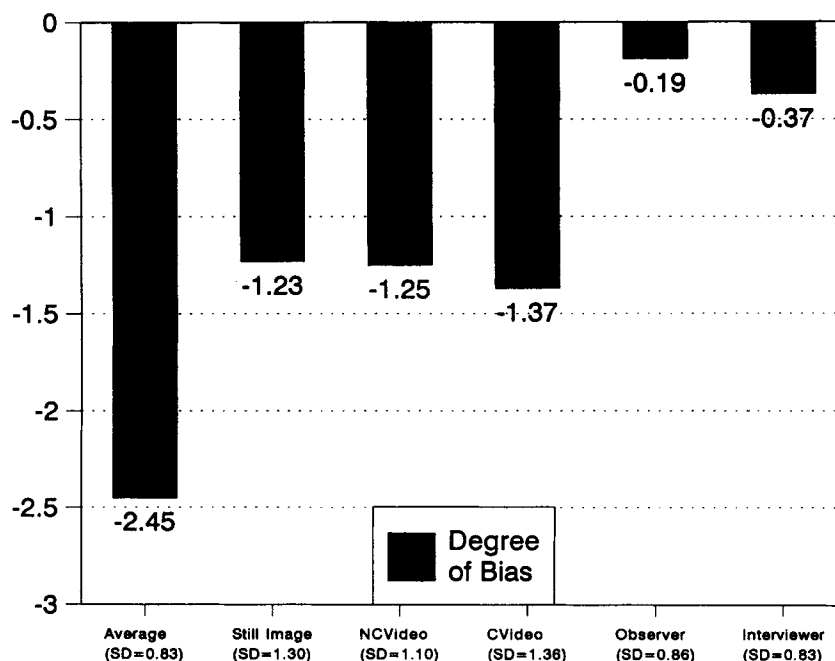


Figure 4. Means and standard deviations (SD) for life event ratings (Study 4). NC = non-contemporaneous; C = contemporaneous.

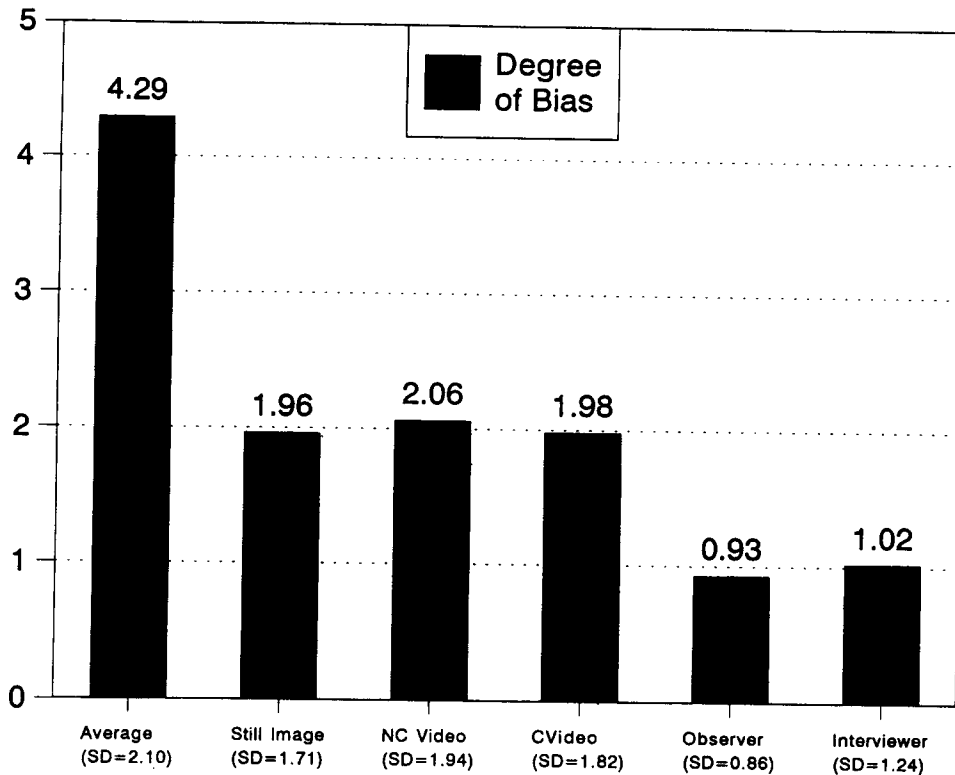


Figure 5. Means and standard deviations (SD) for trait ratings (Study 4). NC = non-contemporaneous; C = contemporaneous.

nificantly less bias than those who watched a presentation that they believed had occurred earlier in the semester. This difference was nonsignificant both for life events and trait ratings ($F < 1$ in both cases). Thus, there is no indication that the contemporaneous nature of the comparison is an important component of the better-than-average effect.

Participants who watched what they believed was a contemporaneous interview differed from the live-observer participants only in that the live observers were actually in the same room with the comparison target, whereas participants in the contemporaneous condition viewed this target on their TV monitors. Nevertheless, participants who watched the interview on their TV monitors exhibited more bias than live observers on both life event ratings, $F(1, 167) = 10.47, p < .002$, and trait ratings, $F(1, 167) = 5.13, p < .03$, thus providing strong support for the hypothesized role of personal contact in reducing the better-than-average effect.

Similarity Ratings

An ANOVA yielded no significant differences in similarity ratings among the experimental conditions either on life event ratings or on trait ratings. Individual comparisons between the personal- and non-personal-contact conditions, and between the non-personal-contact and average-college-student conditions, were also nonsignificant (all F s < 1). The means in the experimental conditions were as follows: interviewer ($M = 4.21$;

$SD = 1.24$); live observer ($M = 3.99$; $SD = 2.14$); contemporaneous video ($M = 3.92$; $SD = 2.57$); non-contemporaneous video ($M = 3.76$; $SD = 2.58$); still video image ($M = 3.96$; $SD = 2.49$); average college student ($M = 3.83$; $SD = 2.06$).

We calculated correlations between participants' perceptions of similarity to the comparison target and their life event and trait ratings. Correlations were low and nonsignificant both for life events ($r = .07, p > .41$) and trait ratings ($r = -.09, p > .31$). Within-cell correlations were also uniformly low and nonsignificant.

Thus, the results of Study 4 replicated the two main findings of Study 3. First, individuation of the target reduced the magnitude of the better-than-average effect relative to comparisons with the average college student. Second, personal contact with the comparison target led to less biased comparisons than conditions in which no personal contact occurred.

Study 4 also showed that specific communication from individuated targets is not required for a reduction of the better-than-average effect. Participants who saw a still video image of the target still exhibited less bias than those who compared themselves with the average college student.

Explanations in terms of the contemporaneous nature of the comparison were not supported. Participants who saw the comparison target on their monitors in what they believed was a live interaction exhibited approximately the same degree of bias as did participants who believed that the interaction had occurred previously.

Finally, Study 4 demonstrated the importance of personal contact by showing that live observers evinced significantly less bias than did observers who watched what they believed was a contemporaneous interview on their TV monitors. Whereas live observers had personal contact with the target by means of mere presence, participants who saw the target on their TV monitors did not have such contact. This provides strong corroboration for the assumption that live personal contact is an essential distinguishing variable between real and hypothetical social comparison targets.

Although we originally argued that the contemporaneous-video and live-observer conditions were virtually identical, there is one way in which they differed. In the live-observer condition, the participant could be seen by the comparison target, whereas this was not the case in the contemporaneous-video condition. Thus, the diminished bias in the live-observer condition could possibly be due to evaluation apprehension or to some other process arising from participants' knowledge that they could be seen by the observer. We explored this issue directly in Study 6.

Study 5: Vividness of Comparison Target

Another alternative explanation for the reduced bias in personal-contact conditions is that the comparison target may be more perceptually vivid in such conditions. To assess this possibility, we manipulated the target's vividness in Study 5 by providing participants with either a frontal view of the target (as in the previous studies) or by orienting participants to the back of the target's head. The decision to manipulate facial orientation was based on a number of factors. The face is generally recognized as the most important source of nonverbal cues (Mehrabian & Weiner, 1967). Research has indicated that the face reliably conveys a variety of emotions, such as fear, anger, sadness, and happiness (Ekman, 1985; O'Sullivan, Ekman, Friesen, & Scherer, 1985). Facial cues have also been shown to influence judgments of a target's sociability, intelligence, and morality (Alicke, Smith, & Klotz, 1986). Furthermore, previous research that has manipulated whether a person views the face or the back of the head has demonstrated that facial orientation can influence complex social judgments, such as whether the confession of a defendant was voluntarily produced (Lassiter, Slaw, Briggs, & Scanlan, 1992).

We manipulated three conditions in Study 5. The first condition was identical to the live-observer conditions in Studies 3 and 4. In the second condition, the live observer saw the back of the target's head, and in the third condition, participants saw the back of the target's head on videotape. If the vividness of the comparison target is important, less bias should be obtained when the live observer sees the target's face than when he or she sees the back of the target's head. However, if personal contact is what effectively diminishes the better-than-average effect, the live nature of the comparison rather than the vividness of the target should determine the magnitude of the effect. In this case, the same amount of bias should be obtained in both live-observer conditions, each of which should exhibit less bias than the videotape condition.

Method

Participants

Participants were 37 male and 48 female undergraduate students who participated in partial fulfillment of a class requirement.

Procedure

The procedure for conducting the interview was the same as in previous studies except that confederates were used in the interviewer role. Participants who saw the back of the target's head in the live-observer and videotape conditions were provided with identical instructions as those who saw the target's face. The volume on the videotape was increased to compensate for the fact that the comparison target was facing away from the camera at the time the interview was taped.

Results and Discussion

Life Events

The prediction regarding personal contact was that live observers who saw the back of the comparison target's head and those who saw a frontal view would not differ in their ratings of themselves vis-à-vis the target but that both of these groups would differ from the group who saw the back of the comparison target's head on videotape. As expected, both live observers exhibited roughly the same amount of bias ($F < 1$). As can be seen in Figure 6, these two groups directionally evidenced less bias than the group that saw the videotape, but this effect did not attain conventional levels of significance, $F(1, 83) = 2.88, p < .09$, for life event ratings.

Trait Ratings

Trait ratings for the three experimental conditions are shown in Figure 7. As with life event ratings, the difference between the two live-observer groups on trait ratings was not significant ($F < 1$). The two live-observer groups did exhibit less bias, however, than the group that saw the videotape, $F(1, 83) = 7.72, p < .007$.

Thus, the data of Study 5 argue against the possibility that perceptual vividness can account for the effects of personal contact on the magnitude of the better-than-average effect. Participants who never saw the target's face but who were in the same room with the target during the interaction exhibited approximately the same degree of bias as live observers who saw the target's face. Furthermore, these two groups (live observers who saw the front of the target's face and live observers who saw the back of the target's head) exhibited less bias than the group that saw the videotape on both trait ratings and life events, although the latter effect did not reach a conventional level of statistical significance.

Study 6: Personal Contact and Implied Evaluation

One purpose of Study 6 was to assess the role of implied evaluation in the better-than-average effect. Participants in the personal-contact conditions of the previous studies were visible to the target, whereas those who did not establish per-

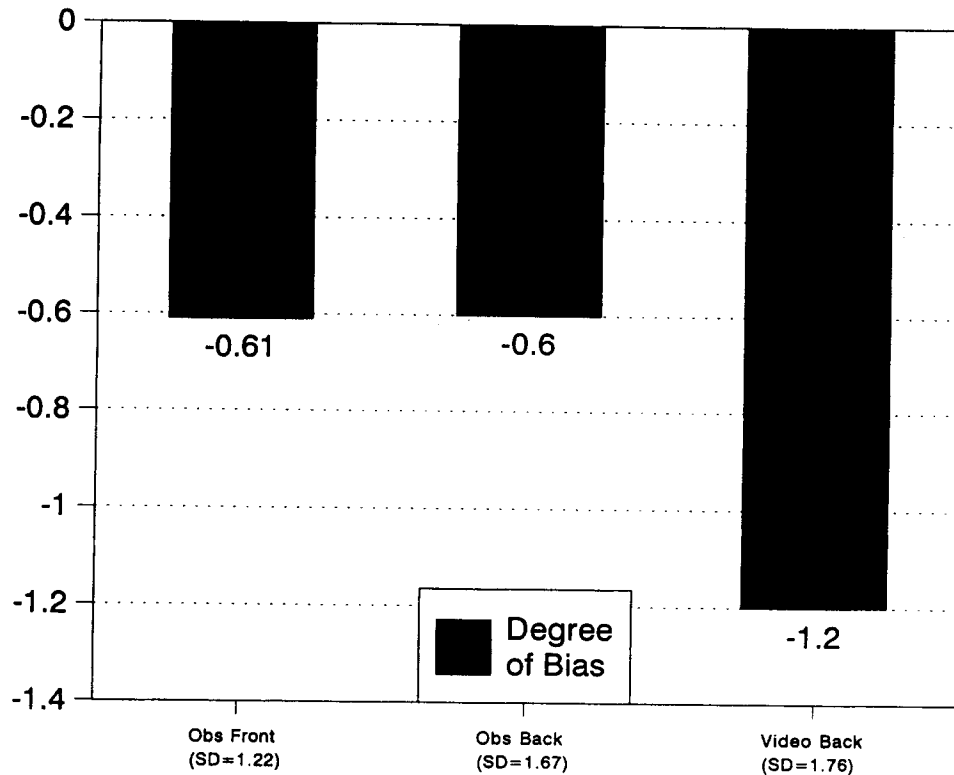


Figure 6. Means and standard deviations (SD) for life event ratings (Study 5). Obs = observer.

sonal contact were not visible. As suggested previously, participants in the personal-contact conditions could possibly have had greater concern with being evaluated by the target. Perhaps people evaluated others more favorably when they anticipate being evaluated themselves. If so, this could account for the reduced better-than-average effect in the personal-contact conditions. The fact that participants did not expect further interaction with the target suggests that apprehension with actually being evaluated cannot account for the differences between the personal-contact and no-personal-contact conditions. It is possible, however, that participants in the no-personal-contact conditions may have experienced less implied evaluation because of their anonymity. Thus, even though participants in the personal-contact conditions did not expect to interact with the target, the fact that they were visible to the target may have led to thoughts about being evaluated and therefore contributed to less bias in the comparison process.

We pursued this question in Study 6 by comparing two conditions: one in which observers believed the target could see them through a two-way window (visible-window condition), and one in which observers believed they were viewing the target from behind a one-way window and therefore could not be seen (non-visible-window condition). If implied evaluation is an important determinant of the better-than-average effect, the bias should be reduced in the visible condition relative to the nonvisible condition. However, if personal contact is the crucial element, the better-than-average effect should be reduced in the two conditions in which the

participant is visible and establishes personal contact with the target (interviewer and live observer) relative to the condition in which the participant is visible but no personal contact occurs (visible-window condition).

In our previous studies, participants compared themselves either with a specific person or with the average college student on a single scale. We used this methodology to maintain consistency with previous research, most of which has used single-scale ratings. More direct support for the idea that individuation and personal contact lead to more favorable evaluations of the target can be obtained by asking participants to evaluate themselves and the target on separate scales. As in previous studies, targets with whom the participant had personal contact were expected to be evaluated more favorably than individuated targets with whom no personal contact had been established. Furthermore, individuated targets were expected to be evaluated more favorably than the average college student. These findings, unconfounded by comparative judgments with oneself, would provide strong support for the assumption that targets are evaluated more favorably as a result of individuation and personal contact.

In Study 6 we again included a contemporaneous-video condition, in which participants saw the target on their TV monitor in what they believed was a live interview. We also included a contemporaneous-audio condition in which participants heard the target through the TV monitor, again in what they believed was a live interview.

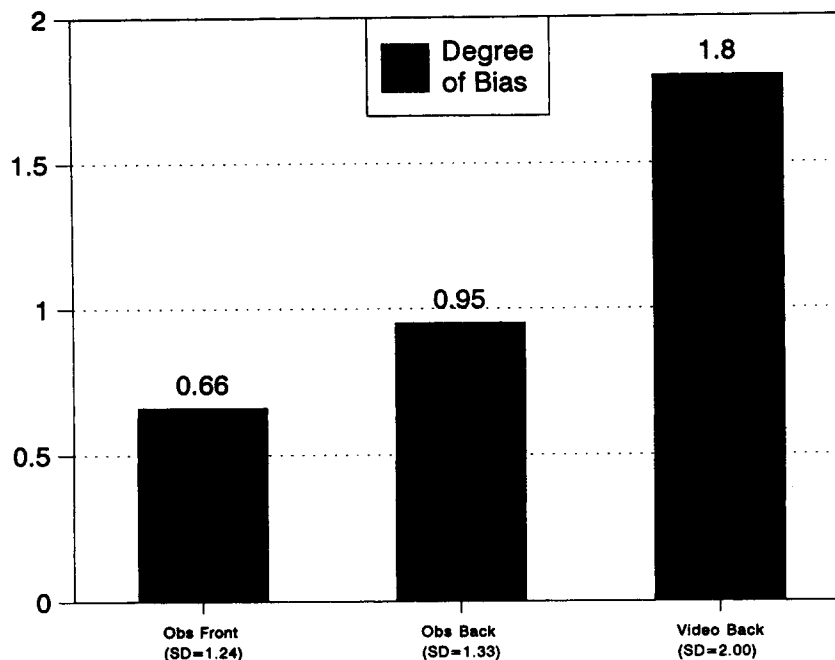


Figure 7. Means and standard deviations (SD) for trait ratings (Study 5). Obs = observer.

Method

Participants and Procedure

Participants were 84 male and 91 female undergraduate psychology students. The procedure for the live-interview and live-observer conditions was identical to that in previous studies.

Participants who watched the interview through a window had the same perceptual vantage of the target as did participants in the live-observer conditions of the previous studies. Participants who believed they could be seen by the target (visible-window condition) were first brought into the room where the interaction was to take place and shown the experimenter through the window. In this condition, the lighting was arranged so the experimenter could be seen. Participants who were told they could not be seen (non-visible-window condition) were brought into the room and shown that they could not see through the window.

Study 6 also included conditions in which participants watched a videotape they believed conveyed a live interview in the next room (identical to the contemporaneous-video condition of Study 4) and a condition in which they heard an audiotape, again supposedly conveying a live interview. For simplicity, in Study 6 we examined only life event ratings.

Life event ratings were made on 21-point scales and were prefaced with the question "How likely is this to happen to you (or to the comparison target)?" The scales were anchored with the phrases *very unlikely* (-10) and *very likely* (+10). Half of the participants made ratings of themselves followed by ratings of the comparison target, and the other half made these judgments in reverse order.

Results

Separate Scale Ratings

No main effects or interactions were obtained for the order in which evaluations were made (self followed by target or target

followed by self); thus the order variable was subsequently ignored.

One concern in Study 6 was to provide more direct evidence (on separate scale ratings) that real people are evaluated more favorably than hypothetical targets. Means and standard deviations for individual ratings of the comparison target are presented in Figure 8. One prediction of the levels-of-abstraction perspective is that individual ratings of targets with whom personal contact has been established (interviewer and live observer) should be more favorable than ratings of individuated targets with whom no personal contact has been established (contemporaneous video and audio, visible and non-visible window). This comparison was significant, $F(1, 174) = 4.26, p < .04$. The second major prediction is that individuated targets should be evaluated more favorably than the average college student. This prediction was also supported, $F(1, 174) = 19.69, p < .0001$.

Just as the separate scale measurements make it possible to examine individual ratings of the target across comparison conditions, it also is possible to examine individual ratings of the self. The same comparisons reported above were repeated with self-ratings rather than ratings of the target as the dependent variable. None of these comparisons were significant (all $ps > .10$), suggesting that participants' ratings of themselves were fairly constant across comparison conditions.

Difference Ratings

The primary predictions unique to Study 6 involved the conditions in which the participant was visible or not visible to the target. We used difference scores between ratings of self and

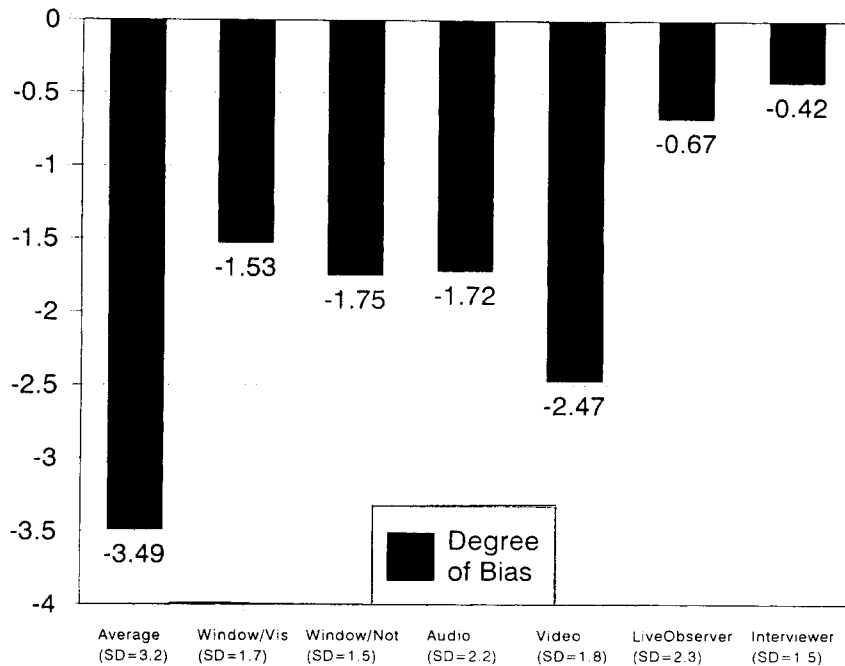


Figure 8. Means and standard deviations (SD) for life event ratings of comparison target (Study 6). Window/Vis = visible window; Window/Not = nonvisible window.

target to make the values comparable to the single-scale ratings of the previous studies. The means and standard deviations for these difference scores are provided in Figure 9. The possibility that implied evaluation is responsible for reductions in the better-than-average effect suggests that there should be less bias when participants who view the target through a window believe they can be seen by the target than when they believe they cannot be seen. The comparison between these two conditions was nonsignificant ($F < 1$). The personal-contact explanation, however, predicts that the interviewers and live observers—who are visible to the target and who have personal contact with the target—should exhibit a reduced bias in comparison to the participants in the visible-window condition, who have no personal contact but who believe they can be seen by the target. This comparison was (marginally) significant, $F(1, 174) = 3.49, p < .06$.

Finally, an ANOVA conducted only on the individuated, non-contact conditions—video, audio, and the two window conditions (visible, nonvisible)—indicated that these conditions did not differ from one another ($F < 1$).

In sum, the results of Study 6 provide direct support for the importance of individuation and personal contact in the better-than-average effect. In contrast to previous studies, which have used single-scale ratings of self and target, ratings of self and target were made on separate scales in Study 6. Considering ratings of the target separate from ratings of the self, results indicated that targets with whom personal contact was established were evaluated more favorably than targets with whom no personal contact occurred, and individuated targets were evaluated more favorably than was the average college student.

Further analysis showed that participants' belief that they could or could not be seen by the target exerted no influence on the better-than-average effect, thus demonstrating that implied evaluation is not an important moderator of this effect. Finally, Study 6 found no differences in the magnitude of the better-than-average effect among conditions in which participants did not have live visual contact with the target (contemporaneous-video, audio, and window conditions).

Study 7: Cognitive Interference and Social Comparisons

Study 7 represents an initial attempt to understand the process by which self-other comparisons are made. As stated at the outset, we believe the tendency to view oneself more favorably than others is a heuristic that confers a number of adaptive advantages, such as maintenance of a relatively high level of self-esteem. The fact that the bias is reduced in comparison with individuated targets and that specific downward comparisons are not required suggests that such comparisons may be made without a great deal of cognitive effort. We contend that the tendency to evaluate oneself more favorably than others is engaged relatively automatically in abstract self-evaluations or in comparisons with abstract targets and that this heuristic is disengaged with little cognitive effort when comparing oneself with real people.

By contrast, extant perspectives view the better-than-average effect as a controlled process in which people select downward comparison targets, or think about specific negative characteristics of others, when making such comparisons (e.g., Perloff & Fetzer, 1986). Although it has been convincingly demonstrated

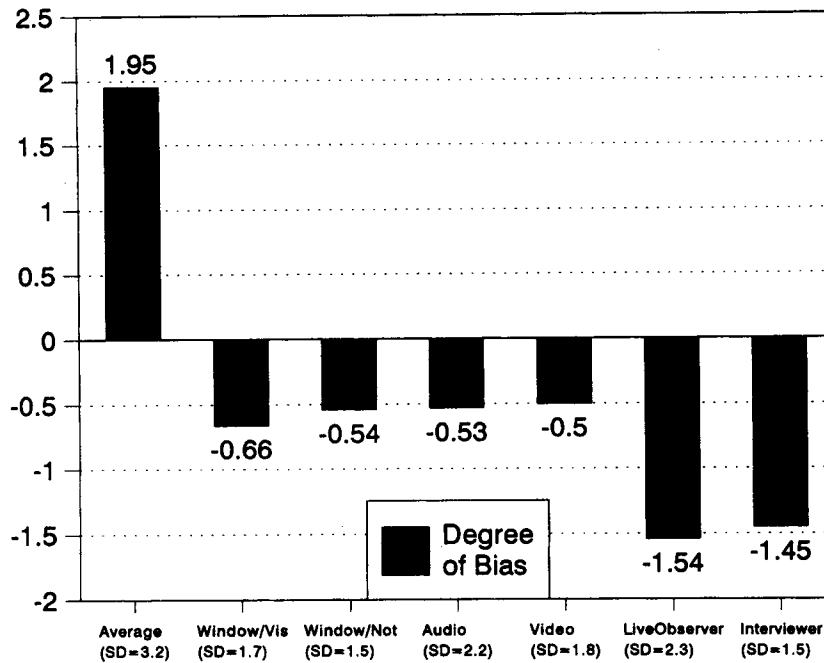


Figure 9. Means and standard deviations (SD) for difference scores (Study 6). Window/Vis = visible window; Window/Not = non-visible window.

that such downward comparisons can reduce the better-than-average effect, we do not believe that downward comparison is a necessary component of the effect. Again, we assume that the tendency to view oneself as better than others is a heuristic that is disengaged relatively automatically in comparisons with real people.

To show that careful thinking about other people's characteristics in relation to one's own is not a necessary condition for obtaining the better-than-average effect, half of the participants in Study 7 were presented with a distractor task while making comparisons, and the other half made these comparisons without a distractor task. Half of the participants compared themselves with a person they saw on videotape (individuated target), and half compared themselves with the average college student. As before, we predicted that those who compared themselves with an individuated target (seen on videotape) would exhibit a smaller bias than those who compared themselves with the average college student.

We also expected that reduction of the better-than-average effect as a result of individuating the target would occur even under conditions of severe cognitive load. In the present context, of course, this prediction is tantamount to a null effect. That is, we predicted that people who viewed an individuated target would exhibit a reduced better-than-average effect relative to those who compared themselves with an average college student, and that this reduction would not depend on cognitive load. It was important, therefore, to show that the cognitive-load manipulation effectively taxed participants' processing ability. It also was important to show that the cognitive load

manipulation was effective in eradicating participants' ability to think about a specific comparison target.

Method

Participants

Participants were 61 male and 71 female students enrolled in General Psychology who participated for extra credit toward their final grade.

Materials

In Study 7 we used both life event and trait ratings. Participants compared themselves with the person they saw on videotape, or to the average college student, on the 24 life events and 10 traits used in the previous studies. Both life event ratings and trait ratings were made on single scales.

Procedure

Two independent variables were manipulated: whether participants compared themselves with a person they saw on videotape or with the average college student (comparison target), and whether or not they were exposed to a cognitive interference task (cognitive load). Data were collected from each participant individually.

The videotaped interviews were taken from previous studies. After being seated in a small experimental room, participants in the cognitive interference conditions were informed that they would be asked to make a series of comparisons between themselves and: a) the person on the videotape or b) the average college student. The instructions for making these judgments were the same as in the previous studies. Participants in the high-cognitive-load conditions were told that the researchers were

interested in the effects of cognitive interference on such judgments. Participants were, therefore, to count backward by threes as they made their judgments. They were given a 3-digit number (161) and asked to begin counting backward out loud. Participants were told not to stop counting at any time, and the experimenter remained in the room to ensure that these instructions were carried out. After participants had begun counting, the booklet containing the life events and trait dimensions was placed in front of them, and they continued counting as they made their responses. Participants in the low-cognitive-load condition made their judgments as in the previous studies. The order of making life event and trait ratings was counterbalanced.

Results and Discussion

Manipulation Checks

To assess the effectiveness of the cognitive-interference task, participants were asked to recall as many of the traits and life events as they could. A 5-min card-sorting task was interpolated as a distractor. The cognitive-load manipulation was effective: Participants recalled fewer traits under cognitive-load ($M = 1.51$) than under no-cognitive-load ($M = 2.42$) conditions, $F(1, 107) = 9.25, p < .003$, and also recalled fewer life events under cognitive-load ($M = 7.31$) than under no-cognitive-load conditions ($M = 8.35$), $F(1, 107) = 8.97, p < .004$.³

The second manipulation check assessed whether participants thought about a specific person when they made their judgments. Following completion of the task, participants who compared themselves with the average college student were asked, in consecutive order: "How did you go about making these judgments?" and "Did you think of a specific person or specific people when you made these comparisons?" No participants reported making specific comparisons in response to the first question. Somewhat to our surprise, only 2 participants in the low-cognitive-load condition, and no participants in the high-cognitive-load condition, reported making comparisons to specific people in response to the second question. The results of the analyses reported below were not changed appreciably when these participants were eliminated from the analysis. In a sense, therefore, the cognitive-load condition was unnecessary to discourage people from using specific comparison targets. Consistent with the assumption that self–other comparisons are typically made relatively automatically, these data indicate that people do not spontaneously consider specific others in making such judgments.

Life Events

Mean life event ratings and standard deviations are provided in Figure 10. The first prediction was that participants who compared themselves with the average college student would exhibit a greater better-than-average effect (i.e., rate themselves more favorably on trait dimensions) than those who compared themselves with a person on videotape. This prediction was confirmed by a significant main effect of the comparison target, $F(1, 131) = 4.04, p < .02$. The second prediction was that this effect would persevere even when participants' ability to think about specific characteristics of the target was severely reduced. This prediction was confirmed by the lack of a significant effect

for the cognitive-load manipulation and the absence of an interaction of the cognitive-load manipulation with the comparison target (both $F_s < 1$).

Trait Ratings

Mean trait ratings and standard deviations for trait ratings are provided in Figure 11. The same pattern of results was obtained for trait ratings as for life event ratings. First, a significant main effect of the comparison target, $F(1, 131) = 34.98, p < .0001$, indicated that the better-than-average effect was greater when participants compared themselves with the average college student than with an individuated target. Second, there was neither a significant effect of the cognitive-load manipulation nor an interaction between cognitive load and comparison target (both $F_s < 1$).

Thus, as predicted, the better-than-average effect was obtained in conditions in which it was difficult for participants to think of specific targets or specific information about those targets while making self–other comparisons. As it turned out, however, the cognitive-interference manipulation was unnecessary to discourage participants from comparing themselves with specific individuals: Few participants reported doing so even in the absence of the interference task.

General Discussion

A wealth of data support the contention that people harbor unrealistically positive self-images. These data derive primarily from research on self-enhancing and self-protective explanations of behavior—what is generally referred to as the *self-serving bias* (Miller & Ross, 1975; Weary, 1978; Zuckerman, 1979). The better-than-average effect represents an even more fundamental type of self-enhancement or self-protection, namely, the tendency to view one's behaviors, opinions, characteristics, and prospects more favorably than those of others. Although the present studies showed that the magnitude of the better-than-average effect depends on the target's individuation and on personal contact, this bias nevertheless persevered across a wide range of comparison conditions. The better-than-average effect, therefore, appears to be a pervasive and robust phenomenon.

The most prevalent explanation for the better-than-average effect assumes that people make downward comparison choices or selectively recruit information that favors themselves (Perloff & Fetzer, 1986). Although it has been convincingly demonstrated that downward comparison and selective recruitment are sufficient conditions for the better-than-average effect, the present research suggests they are not necessary conditions: The better-than-average effect was not altered in conditions in which participants were cognitively overloaded and unable to make such comparisons. Furthermore, the fact that few people spontaneously select specific targets when asked to compare themselves with the average college student suggests that downward comparison and selective recruitment are not pervasive determinants of the better-than-average effect.

³ No recall data were collected during the first few testing sessions, thus accounting for the reduced degrees of freedom in these analyses.

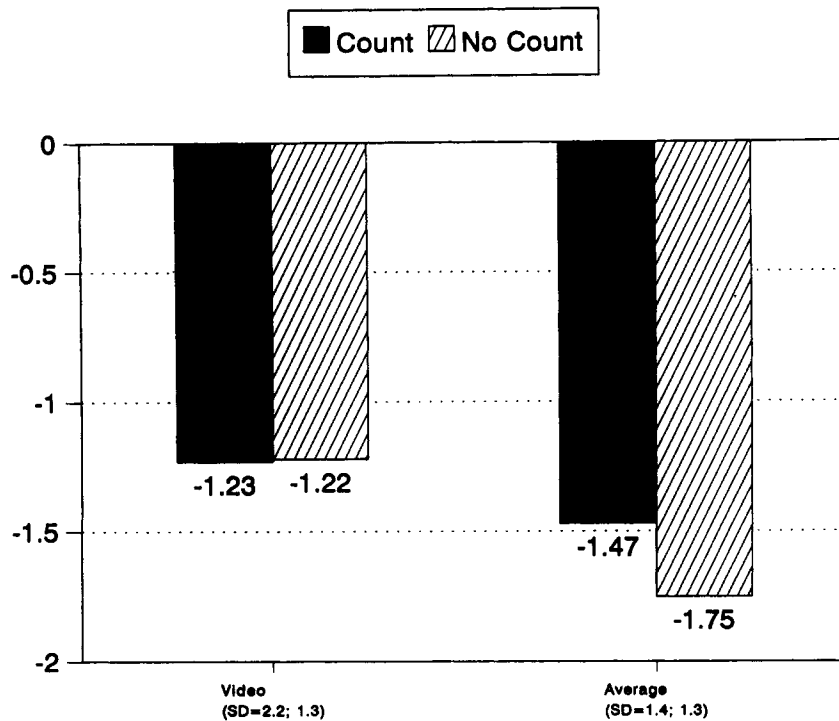


Figure 10. Means and standard deviations (SD) for life event ratings (Study 7).

Because the better-than-average effect is by definition a comparative effect, its magnitude depends fundamentally on the nature of the comparison target. We have argued that the average college student, a standard that has served as the comparison target in virtually all the research on the better-than-average effect, is a vague, ambiguous target. The importance of ambiguity in biased social comparisons has been discussed by a number of investigators. For example, Brown (1986) noted that the ambiguity inherent in trait judgments permits people considerable latitude to view themselves more favorably than others. As mentioned previously, Dunning and his colleagues have shown that people exhibit the greatest better-than-average effect on ambiguous trait dimensions. In a more applied context, Taylor et al. (1983; also, Taylor & Lobel, 1989; Wood, Taylor, & Lichtman, 1985) suggested that comparisons with hypothetical women may serve a self-enhancing function for patients with breast cancer.

Furthermore, research has shown that concrete case information, such as information about a specific individual, has a much greater influence on social judgment than abstract statistical information, such as information about average or typical performance (Hamill, Wilson, & Nisbett, 1980). We predicted, therefore, that any concrete, individuated target would reduce the better-than-average effect relative to comparisons with the average college student. In support of this assumption, these studies showed that comparisons with an individuated target, conveyed by means of a still video image, a written transcript, or an audiotape or videotape, reduced the better-than-average effect relative to comparisons with the average college student.

The degree of reduction due to individuation was approximately the same across these various comparison conditions.

The second factor that reduces the vagueness or abstractness of social comparisons is personal contact. Personal contact can be best understood by way of an analogy with mere presence in social facilitation research. Thus, personal contact involves being in the live presence of the target regardless of whether any interaction takes place. In the present studies, targets with whom personal contact occurred, either by interviewing the target or by observing the interview, reduced the better-than-average effect beyond the effects of individuation, thus demonstrating the independent effect of personal contact.

We evaluated a number of alternatives to the individuation and personal contact elements in these studies. Study 2 showed that the average college student is not viewed pejoratively with respect to participants' perceptions of the distribution mean for a particular trait. Thus, reductions in the better-than-average effect with respect to the average college student cannot be explained in terms of negative associations with the term *average*.

Study 4 eliminated the possibility that the reduced bias in individuated comparisons was due to minimal communication from the target by demonstrating that the bias was reduced to the same extent when participants viewed a static videotaped image. Studies 4 and 6 demonstrated that the contemporaneous nature of the comparison had no influence on the better-than-average effect. The results of Study 4 also indicated that perceived similarity to the target was not an im-

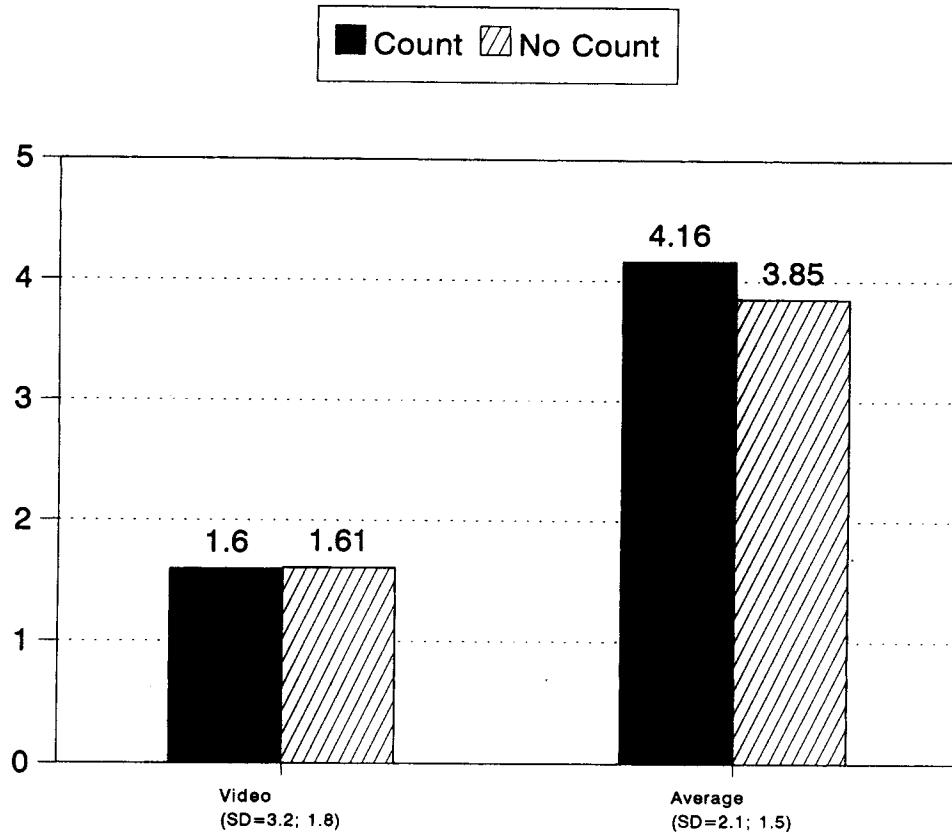


Figure 11. Means and standard deviations (SD) for trait ratings (Study 7).

portant component of the better-than-average effect in the conditions of these studies.

Study 5 provided evidence against a perceptual-vividness explanation by showing that approximately the same degree of bias occurred regardless of whether live observers saw the target's face or the back of the target's head. Study 6 showed that implied evaluation could not account for differences in the better than average effect.

Study 6 also confirmed the results of the previous findings concerning individuation and personal contact with separate scale measures that permitted direct evaluation of target ratings, unconfounded by self-evaluations. The arguments concerning individuation and personal contact assume that target evaluations are altered commensurately with the degree of ambiguity inherent in the comparison. Thus, Study 6 was important in that it demonstrated directly this alteration in ratings of the target.

The tendency for people to evaluate themselves more favorably than others may be viewed as a heuristic that serves a number of adaptive functions, the most important of which is to maintain a relatively high level of self-esteem. Support for the view that this heuristic is engaged and disengaged relatively automatically was obtained in Study 7, in which virtually identical results were obtained under conditions of high and low cognitive load. Of course, these results are ten-

tative because they are tantamount to demonstrating a null effect. One could argue, for example, that people do make downward comparisons but that such comparisons are made effortlessly and therefore require little cognitive capacity. This argument would also have to assume that such comparisons are inaccessible to conscious awareness in that hardly any participants report making such comparisons. Although this is possible, we feel that our explanation in terms of hierarchical levels of ambiguity provides a more plausible and parsimonious account of the data.

The results of these studies have far-reaching implications for research and theory on self-serving attributions. Most of the attributional literature on egoistic biases has asked people to attribute the outcomes of their behavior or performances to personal factors or to environmental obstacles. Performance feedback typically has been provided in the form of statistical feedback indicating the percentage of the participant's peers who performed better or worse on the task. Thus, in the majority of these studies, attributions are based on comparisons with abstract targets. The results of the present studies suggest that attributional biases might be considerably reduced by decreasing the abstractness of these targets, perhaps by providing participants with the scores of peers with whom they have interacted, rather than with pallid distributional information about the general performance of their peers.

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